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Harkness, Harvey Willson

Catalogue of the Pacific  
Coast fungi



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CATALOGUE  
OF THE  
PACIFIC COAST FUNGI.

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H. W. HARKNESS, M. D.  
JUSTIN P. MOORE, A. M.

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H. W. Harkness + J. P. Moore

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## Catalogue of the Pacific Coast Fungi.

[Read before the California Academy of Sciences Feb. 2, 1880.]

### INTRODUCTION.

Previous to the year 1876 nothing had been accomplished in the study of the fungi of this Coast, with the exception of a few species collected by the Wilkes expedition, which were at that time referred to Professor Torrey for identification. But four or five of these were determined and of these but one or two can now be traced. Since that period, although the flowering plants have been most thoroughly studied, the fungi of this Coast have been entirely neglected.

Fully realizing the importance of the undertaking, not only for its scientific value, but also from an economic stand-point, we, four years since, determined to devote our leisure to making a collection of the Pacific Coast Fungi. To those who have given their time to scientific pursuits we need not say that this has been a work of ever-increasing interest. While we have not been able to visit every portion of our Coast, it will be observed that our explorations have extended over quite a wide range of territory—from Mt. Shasta on the north to Fort Yuma on the south—from the seashore to the eastern limits of the Sierras.

In reference to the geographical distribution of the fungi, it will be seen that most of our species found upon the low lands are common to both Europe and America, whilst of those growing along the Sierras, many are the same as the Alpine species of Europe; others are peculiar to our own Coast. Again, it will be seen, that the hot and arid desert at the south yields species common to Africa. The distribution we have aimed to make clear by giving in every instance the locality where found. We have, in the case of the Hymenomycetes and other edible fungi, indicated the fact by appending an *E.* We have also added the habitat of our *parasitic fungi*, to aid the student, and have, as will be observed, indicated the *new species*.

We do not claim for this catalogue that it contains anything like a full list of the fungi of this Coast, or even of our own collection. It is merely a catalogue of such as we know to be found here, and such as we have fully determined. A large mass of material still remains in our hands for study and determination, as our leisure may allow. We give this list, the first of the kind ever published on this Coast, in the hope that it may be of service to others and incite them to a study of this most interesting department of botanical research. In the cave fungi, or fungi of our mines, comparatively little has been done. Want of a literature on this subject has been a great hindrance to us in this work. The single cave fungus placed in the addenda is so striking that we have deemed it worthy of an insertion. There are others which we are at work upon, and in due time hope to report.

We have followed in the first part of this catalogue the arrangement of the genera as given by Fries in his *Hymenomycetes Europæi*. For the rest, we have adopted the order, as far as practicable, as given in Cooke's

San Francisco 1880

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Hand-book. Special mention should be made here of the valuable assistance rendered us in the determination of species, by Messrs. Cooke, Plowright, Phillips and Vize of England. To these gentlemen our hearty thanks are tendered. To the San Francisco Microscopical Society, for the use of its valuable library and plates, we owe much.

H. W. HARKNESS, M. D.

JUSTIN P. MOORE, A. M.

## Family I. HYMENOMYCETES.

### Order I. AGARACINI.

#### I. AGARICUS.

#### Series I. LEUCOSPORI.

##### I. AMANITA.

##### I. (AMANITA.)

- adnatus. Smith. San Raf.
- excelsus. Fr. San Raf.
- nitidus. Fr. San Raf.
- pantherinus. D. C. San Fran.
- phalloides. Fr. San Raf.
- strangulatus. Fr. San Raf.
- strobiliformis. Fr. rare. San Raf.
- vagitanus. Bull. San Raf.
- vernus. Bull. San Raf.
- virosus. Fr. San Raf.

##### II. LEPIOTA.

##### A. (LEPIOTA.)

- cristatus. Fr. San Raf.
- excoriatus. Schaeff. E. San Raf.
- illinatus. Fr. E. San Raf.
- procerus. Scop. E. San Fran.
- rachodes. Vtt. E. San Raf.

##### III. ARMILLARIA.

##### A. (ARMILLARIA.)

- constrictus. Fr. San Raf.
- melleus. Vahl. E. San Raf.

##### IV. TRICHOLOMA.

##### A. (TRICHOLOMA.)

- albus. Schaeff. San Raf.
- carneus. Bull. San Raf.

colossus, Fr. Nevada.  
 columbetta, Fr. San Raf.  
 compactus, Fr. San Raf.  
 equestris, Linn. San Raf.  
 gambosus, Fr. San Raf.  
 imbricatus, Fr. San Raf.  
 leucocephalus, Kromb. San Raf.  
 panæolus, Fr. San Raf.  
 personatus, Fr. San Raf.  
 pessundatus, Fr. San Raf.  
 portentosus, Fr. San Raf.  
 resplendens, Fr. San Raf.  
 sejunctus, Sowerb. Howards.  
 sudus, Fr. San Raf.  
 sulfureus, Bull. San Raf.  
 terreus, Schaeff. San Raf.  
 tigrinus, Fr. San Raf.

#### V. CLITOCYBE.

##### A. (CLITOCYBE.)

cyathiformis, Fr. Howards.  
 dealbatus, Sowerb. E. San Raf.  
 fragrans, Sowerb. common. San Raf.  
 fumosus, Pers. San Raf.  
 geotropus, Bull. E. San Raf.  
 infundibuliformis, Schaeff. San Raf.  
 laccatus, Scop. San Fran.  
 maximus, Fr. San Raf.  
 nebularis, Batsch. E. San Fran.  
 odorus, Bull. E. San Raf.  
 phyllophilus, Fr. San Raf.  
 trulloformis, Fr. San Raf.  
 tumulosus, Kalchbr. San Raf.

#### VI. COLLYBIA.

##### A. (COLLYBIA.)

butryaceus, Bull. San Raf.  
 cirrhatus, Fr. San Raf.  
 esculentus, Wulf. E. San Raf.  
 exculptus, Fr. San Raf.  
 fusipes, Bull. E. San Raf.  
 longipes, Bull. E. San Raf.  
 muscigenus, Schum. San Raf.  
 ocellatus, Fr. San Raf.  
 racemosus, Pers. San Raf.  
 radicans, Rabh. E. San Raf.  
 tuberosus, Bull. San Raf.  
 velutipes, Curt. San Raf.

## VII. MYCENA

## A. (MYCENA.)

- aciula*. Schaeff. San Raf.  
*amictus*. Fr. San Raf.  
*capillaris*. Schum. San Fran.  
*citrinellus*. Pers. San Raf.  
*corticola*. Fr. San Raf.  
*debilis*. Fr. San Raf.  
*dilatatus*. Fr. San Raf.  
*echinipes*. Lasch. Blue Cañon.  
*filopes*. Bull. San Raf.  
*hiemalis*. Fr. San Raf.  
*Iris*. Berk. Sausalito.  
*juncicola*. Fr. San Raf.  
*lacteus*. Fr. San Raf.  
*purus*. Pers. Howards.  
*pterigenus*. Fr. San Raf.  
*rugosus*. Fr. San Raf.  
*sanguineolentus*. A. & S. San Fran.  
*stipularis*. Fr. San Fran.  
*strobilinus*. Fr. Howard.

## VIII. OMPHALIA.

## A. (OMPHALIA.)

- fibula*. Bull. San Raf.  
*gracillimus*. Weinm. Howards.  
*integrellus*. Pers. San Raf.  
*oniscus*. Fr. E. San Raf.  
*pyxidatus*. Bull. San Raf.  
*scyphoides*. Fr. San Raf.

## IX. PLEUROTUS.

## A. (PLEUROTUS.)

- applicatus*. Batsch. Sausalito.  
*circinatus*. Fr. San Raf.  
*hypnophilus*. Berk. San Raf.  
*limpidus*. Fr. San Raf.  
*mutilus*. Fr. San Raf.  
*ostreatus*. Jacq. E. San Raf.  
*pometi*. Fr. E. San Raf.  
*salignus*. Abbild. San Raf.  
*serotinus*. Schrad. Sausalito.  
*sestonoides*. Cke. Blue Cañon.  
*striatulus*. Sausalito.  
*ulmarius*. Bull. E. San Raf.



## Series II. HIPORHODII.

## X. VOLVARIA.

## A. (VOLVARIA.)

- bombycinus. Schaeff. E. San Raf.  
 gloiocephalus. D. C. San Raf.  
 speciosus. Fr. San Raf.

## XI. ANNULARIA.

## XII. PLUTEUS.

## A. (PLUTEUS.)

- cervinus. Schaeff. San Raf.

## XIII. ENTOLOMA.

## A. (ENTOLOMA.)

- clypeatus. Huds. San Raf.  
 madidus. Fr. San Raf.  
 repandus. Bull. San Raf.  
 sericellus. Fr. San Raf.

## XIV. CLITOPILUS.

## A. (CLITOPILUS.)

- orcella. Bull. E. San Raf.  
 prunulus. Scop. E. San Raf.

## XV. LEPTONIA.

## A. (LEPTONIA.)

- chalybæus. Pers. San Raf.  
 serrulatus. Pers. San Raf.

## XVI. NOLANEA.

## XVII. ECCILIA.

## XVIII. CLAUDOPUS.

## A. (CLAUDOPUS.)

- depluens. Batsch. San Fran.  
 variabilis. Pers. San Raf.

## Series III. DERMINI.

## XIX. PHOLIOTA.

## A. (PHOLIOTA.)

- marginatus. Batsch. Sausalito.  
 mutabilis. Schaeff. E. rare. San Raf.  
 radicosus. Bull. San Raf.  
 squarrosus. Müll. E. San Fran.

**XX. INOCYBE.****A. (INOCYBE.)**

- cæsariatus*. Fr. San Raf.  
*fastigiatus*. Schæff. San Fran.  
*rimosus*. Bull. Sausalito.  
*sambucinus*. Fr. San Raf.

**XXI. HEBELOMA.****A. (HEBELOMA.)**

- crustuliniformis*. Bull. San Raf.  
*glutinosus*. Lindgr. San Raf.  
*mesophæus*. Fr. San Raf.  
*sinapizans*. Fr. San Raf.  
*versipelles*. Fr. San Raf.

**XXII. FLAMMULA.****A. (FLAMMULA.)**

- lupinus*. Fr. San Fran.  
*sapinus*. Fr. San Raf.

**XXIII. NAUCORIA.****A. (NAUCORIA.)**

- erinaceus*. Fr. San Raf.  
*semiorbicularis*. Bull. San Raf.  
*triscopus*. Fr. San Raf.

**XXIV. PLUTEOLUS.****XXV. GALERA.****A. (GALERA.)**

- confertus*. Bolt. San Raf.  
*hypnorum*. Batsch. San Raf.  
*lateritius*. Fr. San Raf.

**XXVI. TUBARIA.****A. (TUBARIA.)**

- muscorum*. Hoff. San Raf.

**XXVII. CREPIDOTUS.****A. (CREPIDOTUS.)**

- mollis*. Schæff. San Raf.  
*rubi*. Berk. San Raf.

## Series IV. PRATELLI.

## XXVIII. CHITONIA.

## XXIX. PSALLIOTA.

## A. (PSALLIOTA.)

- arvensis. Schæff. *E.* common. San Raf.  
 campestris. Lin. *E.* San Raf.  
 cretaceus. Fr. *E.* San Raf.  
 elvensis. Berk. San Raf.  
 pratensis. Schæff. *E.* common. San Raf.  
 silvaticus. Schæff. *E.* San Raf.

## XXX. STROPHARIA.

## A. (STROPHARIA.)

- æruginosus. Curt. San Raf.  
 caput medusæ. Fr. rare. San Raf.

## XXXI. HYPHOLOMA.

## A. (HYPHOLOMA.)

- appendiculatus. Bull. San Raf.  
 capnoides. Fr. San Raf.  
 coronatus. Fr. San Raf.  
 dispersus. Fr. San Raf.  
 epixanthus. Fr. San Raf.  
 fascicularis. Fr. common. San Raf.  
 lacrymabundus. Bull. San Raf.  
 subalteritius. Schæff. San Raf.  
 velutinus. Pers. San Raf.

## XXXII. PSILOCYBE.

## A. (PSILOCYBE.)

- corneipes. Fr. rare. San Raf.  
 ericæus. Pers. rare. San Raf.  
 foeniseeii. Pers. rare. San Raf.  
 spadiceus. Fr. San Raf.  
 squalens. Fr. San Raf.

## XXXIII. PSATHYRA.

## A. (PSATHYRA.)

- corrugis. P. San Raf.  
 noli-tangere. Fr. San Raf.

## Series V. COPRINARIÆ.

## XXXIV. PANÆOLUS.

## A. (PANÆOLUS.)

- campanulatus. Linn. San Raf.  
 fimiputris. Bull. San Raf.  
 fimicola. Fr. San Raf.

## XXXV. PSATHYRELLA.

## A. (PSATHYRELLA.)

- subatratus. F. San Raf.

## II. MONTAGNITES.

## III. COPRINUS.

## C.

- atramentarius. Fr. *E.* common. San Fran.  
 comatus. Fr. *E.* common. San Fran.  
 deliquescens. Fr. San Raf.  
 fimitarius. Fr. San Fran.  
 micaceus. Fr. San Fran.  
 ovatus. Fr. San Raf.

## IV. BOLBITUS.

## B.

- conocephalus. Fr. San Raf.  
 fragilis. Fr. San Raf.  
 tener. Berk. San Raf.

## V. CORTINARIUS.

## Tribe I. PHLEGMACIUM.

## C. (PHLEGMACIUM.)

- callochrous. Fr. San Raf.  
 purpurascens. Fr. San Raf.  
 scaurus. Fr. San Raf.

## Tribe II. MYXACIUM.

## C. (MYXACIUM.)

- collinatus. Fr. San Raf.

## Tribe III. INOLOMA.

## C. (INOLOMA.)

- violaceus. Fr. San Raf.

## Tribe IV. DERMOCYBE.

## C. (DERMOCYBE.)

cinnamomeus. Fr. E. San Raf.

## Tribe V. TELAMONIA.

## Tribe VI. HYDROCYBE.

## C. (HYDROCYBE.)

sp. (?)

## VI. GOMPHIDIUS.

## G.

gracilis. Berk. San Raf.

viscidus. Fr. San Raf.

## VII. PAXILLUS.

## P.

giganteus. Fr. E. rare. San Raf.

involutus. Fr. San Raf.

nuda. Bull. San Raf.

## VIII. HYGROPHORUS.

## H.

calyptræformis. B. & Br. rare. San Raf.

distans. Berk. rare. San Raf.

eburneus. Fr. E. San Raf.

pratensis. Fr. San Raf.

puniceus. Fr. common. San Raf.

## IX. LACTARIUS.

## L.

chrysorrhæus. Fr. San Raf.

controversus. Pers. San Raf.

deliciosus. Linn. E. common. San Raf.

insulus. Fr. E. San Raf.

mitissimus. Fr. San Raf.

piperatus. Fr. E. San Raf.

volemus. Fr. E. San Raf.

zonarius. Fr. San Raf.

## X. RUSSULA.

## R.

agusta. Fr. E. San Raf.

alutacea. Fr. E. San Raf.

decolorans. Fr. San Raf.

delica. Fr. San Raf.

emetica. Fr. San Raf.

heterophylla. Fr. *E.* San Raf.  
 lactea. Fr. San Raf.  
 lepida. Fr. *E.* San Raf.  
 lutea. Fr. San Raf.  
 ochracea. Fr. San Raf.  
 rubra. Fr. San Raf.  
 sanguinea. Fr. San Raf.  
 vesca. Fr. San Raf.

# **XI. CANTHARELLUS.**

## **C.**

aurantiacus. Fr. San Raf.  
 cibarius. Fr. *E.* San Raf.  
 crispus. Fr. San Raf.

# **XII. ARRHENIA.**

# **XIII. NYCTALIS.**

# **XIV. MARASMIUS.**

## **M.**

epiphyllus. Fr. San Raf.  
 oreades. Fr. *E.* San Raf.

# **XV. LENTINUS.**

# **XVI. PANUS.**

## **P.**

stipticus. Fr. San Raf.

# **XVII. XEROTUS.**

# **XVIII. TROGIA.**

## **T.**

crispa. Fr. San Raf.

# **XIX. SCHIZOPHYLLUM.**

## **S.**

commune. Fr. San Raf.

# **XX. LENZITES.**

## **L.**

abietina. Fr. Howards.  
 confragosa. Fr. Howards.  
 flaccida. Fr. Howards.  
 sepiaria. Fr. Howards.

## XXIII. POLYPORUS.

## P.

- abietinus. Fr  
     On cedar. Big Trees.  
 adustus. Fr. San Raf.  
 annosus. Fr.  
     On logs. Big Trees.  
 argillaceus. n. sp. Cke.  
     On rotting oak. Colfax.  
 brumalis. Fr. San Raf.  
 carneus. Nees.  
     On fir trees. Streetens.  
 cervinus. Pers. San Raf.  
 cinnabarinus. Fr. San Raf.  
 confluent. Fr. San Raf.  
 ferruginosus. Fr.  
     On charred redwood. Streetens.  
 fomentarius. Fr.  
     On laurel. San Raf.  
 hirsutus. Fr.  
     On laurel. San Raf.  
 hispidus. Fr. San Raf.  
 hybridus. B. & Br. San Raf.  
 igniarius. Fr.  
     On laurel. San Raf.  
 Kalakaua. n. sp. Moore.  
     On a boat, sea side Sandwich Islands.  
 labyrinthicus. Schw.  
     On pinus contorta. Summit.  
 obvolutus. n. sp. Cke.  
     On fir logs. Blue Cañon.  
 perennis. Fr.  
     On oak. San Raf. /  
 quercinus. Fr.  
     On oak. San Raf.  
 sulphureus. Fr. E.  
     On redwood. San Raf.  
 varius. Fr.  
     On oak. San Raf.  
 velutinus. Fr.  
     Oak branches. San Raf.  
 versicolor. Fr.  
     On oak. Colfax.  
 violaceus. Fr.  
     On oak. San Raf.  
 vulgaris. Fr.  
     On oak. San Raf.

**XXIV. TRAMETIS.****T.**

cinabarinum.

On oak. San Raf.

Bulliardi. Fr. San Raf.

serpens. Fr. San Raf.

**XXV. DAEDALEA.****D.**

quercina. Pers.

On oak. San Raf.

unicolor. Fr.

On wood. common. San Raf.

vorax. Harkness.

On libocedrus. Blue Cañon.

**XXVI. HEXAGONA.****XXVII. FAVOLUS.****XXVIII. MERULIUS.****M.**

confluens. Schw.

On decaying spruce. Summit.

corium. Fr.

On oak bark. San Raf.

lacrymans. Fr.

Common. San Raf.

molluscus. Fr.

On redwood. San Raf.

rufus. Pers.

tremellosus. Schw.

On logs. Summit.

**XXIX. POROTHELIUM.****XXX. SOLENIA.****S.**

candida. Pers.

On liber of fir. Streetens.

fasciculata. Pers.

On redwood. San Raf.

ochracea. Hoff.

On oak bark. San Fran.



## Order III. HYDNEI.

## XXXI. HYDNUM. +

## H.

- alutaceum*. Fr. San Raf.  
*caput ursi*. Fr. San Raf.  
*chlorinum*. n. sp. Cke.  
     " On maple. Colfax.  
*coralloides*. Scop.  
     *E.* common. San Raf.  
*cyathiforme*. Schaeff. San Raf.  
*niveum*. P.  
     On deadwood. Big Trees.  
*ochraceum*. P. San Raf.  
*ramaria*. Fr.  
     On oak. San Raf.  
*repandum*. L. *E.* San Raf.

## XXXII. HERICIUM.

## XXXIII. TREMELLODON.

## T.

- gelatinosum*. Pers.  
     On redwood logs. San Raf.

## XXXIV. SISTOTREMA.

## XXXV. IRPEX. +

## I.

- Johnstonii*. Berk.  
     On various woods. San Raf.  
*paradoxus*.  
     On alder. San Raf.

## XXXVI. RADULUM. +

## R.

- molare*. Fr.  
     On dead laurel. San Raf.  
*quercinum*. Fr.  
     On oak. San Raf.

## XXXVII. PHLEBIA.

## XXXVIII. GRANDINIA.

## G.

- ocellata*. Fr.  
     On madroño. Streetens.  
     n. s. (?)  
     On redwood. Streetens.

**XXXXX. ODONTIA.****'XL. KNEIFFIA.****XLI. MUCRONELLA.****Order IV. THELEPHOREI.****XLII. CRATERELLUS.****C.**

- cornucopioides. Pers.  
On wood. Berkeley.

**XLIII. THELEPHORA.****T.**

- arida. Fr.  
On pine wood. common. Blue Cañon.  
Harknessii. n. sp. Ph.  
On ground among redwood. San Raf.  
pallida. Pers.  
On ground. Sierras.  
Sowerbii. Berk.  
On ground. Sierras.  
terrestris. Ehrh.  
On ground. Sierras.

**XLIV. STEREUM.\*****S.**

- evolvens. Fr.  
On prunus demissa. Blue Cañon.  
hirsutum. Fr.  
On dead logs. San Raf.  
purpurellum. Fr.  
On willow bark. Sac.  
purpureum. Fr.  
On elder. Streetens.  
tabacinum. Mont.  
On Baccharis. San Raf.

**XLV. HYMENOCÆTE.**

- rubiginosa. Lev.  
On stumps. Streetens.  
tabacina. Lev.  
On redwood. Streetens.  
sp. (?)  
On charred redwood. San Raf.

**XLVI. CORTICIUM.†****C.**

- caeruleum. Fr.  
On redwood. San Raf.
- calceum. Fr.  
On madroño. San Raf.
- carneum. n. sp. B. & Cke.  
On pinus contorta. Summit.
- comedens. Fr.  
On laurel. Blue Cañon.
- evolvens. Fr.  
On cherry. Sac.
- incarnatum. Fr.  
On cornus. Blue Cañon.
- laeve. Pers.  
On laurel. San Raf.
- lactescens. B.  
On willow. Sac.
- lacteam. Fr.  
On redwood. Streetens.
- quercinum. P.  
On oak. San Raf.
- salicinum. Fr.  
On willow. Summit.
- sambuci. Fr.  
On elder. Streetens.
- sanguineum. Fr.  
On redwood. San Raf.
- scutellare. B. & C.  
On adenostoma. Colfax.
- sulfureum. Fr.  
Var. ochroideum. on elder. Sac.
- umbrinum. A. & S.  
On charred redwood. Howards.

**XLVIII. CYPHELLA.†****C.**

- capula. Fr.  
On dead weeds. Berkeley.
- galatea. Fr.  
On mosses. Fr.
- ochroleuca. B. & Br.  
On bramble twigs. San Raf.
- villosa. Pers.  
On dead weeds. Berkeley.

## Order V. CLAVARIEI.

**XLVIII. SPARASSIS.†****XLIX. CLAVARIA.****C.**

- abietina. Schum.  
                   On fir. San Raf.  
 coralloides. Linn. San Raf.  
 cristata. P.  
                   *E.* on foliage Big Trees. Big Trees.  
 fastigiata. Linn.  
                   *E.* On ground. San Raf.  
 flava. Schaeff.  
                   *E.* on ground under oak. San Raf.  
 inquanda. P. (?) San Raf.  
 pistillaris. L.  
                   On ground. San Raf.  
 ——— n. sp. (?)

**L. CALOCERA.****LI. PTERULA.****LII. TYPHULA.****T.**

- filiformis. Fr.  
                   On leaves. San Raf.

**LIII. PISTILLARIA.**

## Order VI. TREMELLINI.

**LIV. TREMELLA.†****T.**

- albida. Hud.  
                   On dead bark. Blue Cañon.  
 lutescens. Fr. common. San Raf.  
 • mesenterica. Retz.  
                   *E.* on redwood. San Raf.

**LV. EXIDIA.****E.**

- auricula Judæa. Fr.  
                   On wood. Sierras.  
 glandulosa. Fr.  
                   On cherry. Sac.  
 recisa. Fr.  
                   On pine twigs. Blue Cañon.  
 saccharina. Fr. Summit.

**LVI. HIRNEOLA.****H.**

- auricula Judæa. Berk. Blue Cañon.  
polytricha. Mont. Sandwich Is.

**LVII. FEMSJONIA.****LVIII. NAEMATelia.†****N.**

- encephala. Fr.  
On redwoods. Streetens.

**LIX. GUEPINIA.****G.**

- helvelloides. Fr.  
On ground. common. San Raf.  
(?) cyphella. Fr.  
On ground. rare. San Raf.  
spathularia. Fr.  
On ground. Sac.

**LX. DACRYMYCES.****D.**

- chrysocomus. Tul.  
On dead spruce. Blue Cañon.  
deliquescent. Fr.  
On pinus contorta. Summit.  
stillatus. Nees.  
On dead sequoia gigantea. Yosemite.  
sp. (?)  
On redwood. Streetens.

**LXI. DITIOLA.****D.**

- radicata.  
On dead pine branches. Blue Cañon.

**Family II. GASTEROMYCETES.****Order VII. HYPOGÆI.****MELANOGASTER.†**

- variegatus. Ful. E.  
On or under the ground under oaks. San Raf.

**Order VIII. PHALLOIDEI.****PHALLUS.†**

- impudicus. Fr.  
On ground. Oakland.

## Order IX. TRICHOGASTRES.

**BATARREA.**

phalloides. P.

On sand hills south of San Fran. and at Phoenix, Arizona.

**PODAXON.**

carcinomale. Fr. Colorado desert.

loandensis. W. &amp; C. Colorado desert.

**GEASTER.**

fimbriatus. Fr.

On ground. San Raf.

hygrometricus. P.

On ground. San Raf.

mammosus. Chw.

On ground. San Raf.

striatus. D. C.

On ground. San Raf.

**BOVISTA.**

ammophila. Lev.

On ground. San Raf.

nigrescens. P.

On ground. San Raf.

plumbea. P.

On ground. San Raf.

**LYCOPERDON.**

asperrimum. W. &amp; C.

On ground. San Raf.

bicolor. W. &amp; C.

On ground. San Raf.

caespitosum. W. &amp; C.

On ground. San Raf.

giganteum. Balsch.

E. on ground. San Raf.

gemmatum. Fr.

On ground. San Raf.

pyriforme. Schw.

On ground. San Raf.

radicata. W. &amp; C.

On ground. San Raf.

**SCLERODERMA.**

verrucosum. Pers.

vulgare. Fr.

## Order X. MYXOMYCETES.

**LYCOGALA.**

- epidendrum. Fr.  
On decaying wood. Sierras.

**RETICULARIA.**

- maxima. Fr.  
On pine stumps. Sierras.  
umbrina. Fr.  
On oak stumps. Stockton.

**ÆTHALIUM.**

- septicum. Fr.  
On boards of tan vats. San Fran.

**DIDERMA.**

- albescens. n. sp. Ph.  
On pine and oak bark. Blue Cañon.  
brunneola. n. sp. Ph.  
On oak bark. San Fran.  
geasteroides. n. sp. Ph.  
On dead bark. Colfax.  
granulatum. Fr.  
On decaying leaves. Sausalito.  
lacineatum. n. sp. Ph.  
On decaying wood. Cushings.  
testaceum. Schw.  
On decaying wood. Cushings.  
vernicosum. P.  
On decaying twigs. San Fran.

**CHONDRIODERMA.**

- geasteroides. Ph.  
On rotten wood. Colfax.

**DIDYMIUM.**

- cinerium. Fr.  
On dead ferns. San Fran.  
clavus. A. & S.  
On decaying bark. San Raf.  
glaucum. n. sp. Ph.  
On decaying wood. San Fran.  
granuliferum. n. sp. Ph.  
On decaying wood. Blue Cañon.  
squamulosum. A & S.  
On decaying foliage of redwoods. San Raf.

**PHYSARUM.**

nutaus. P.

On decaying wood. Cushings.

**BADHAMIA.**

inaurata. Curr.

On dead pine bark. Blue Cañon.

**DIACHÆA.**

elegans. Fr.

On living strawberry leaves. Sac.

**COMATRICHA.**

Friesiana. DeBary.

On rotten wood. Big Trees.

typhina. Roth.

On dead oak. Colfax.

**STEMONITIS.**

arcyriodes. Som.

On oak bark. Blue Cañon.

ferruginea. Ehr.

On dead laurel. San Raf.

fusca. Roth.

On cedar bark. Yosemite.

globosa. Schum.

On dead oak. Blue Cañon.

nigra. Fl. Dan.

On spruce chips. Blue Cañon.

obtusata Fr.

On pinus contorta. Summit.

typhoides. D. C.

On decaying wood. Blue Cañon.

**DICTYDIUM.**

cernuum. Pers.

On dead pine. Yosemite.

**ARCYRIA.**

nutaus. Fr.

On dead oak. Sac.

punicea. Pers.

On dead laurel. Angel Is.

On pine. Yosemite.

umbrina. Schum.

On dead twigs. San Fran.

versicolor, *n. s. p.* Ph.

On bark sequoia gigantea. Big Trees.

vitellina, *n. s. p.* Ph.

On pinus contorta. Summit.



**TRICHIA.**

- chrysosperma. D. C.  
     On balm of gilead, Sac.  
 fallax. Pers.  
     On decaying wood. Cushings.  
 nigripes. Pers.  
     On decaying wood. Cushings.  
 turbinata. With.  
     On decaying wood. Cushings.  
 varia. P.  
     On Pinus Lambertiana. Colfax.

**Order XI. NIDULARIACEI.****CYATHUS.**

- striatus. Willd.  
     On ground. Sac.

**CRUCIBULUM.**

- vulgare. Tul.  
     On dead pine. Yosemite.

**NIDULARIA.**

- campanula. With.  
     On wood. Sierras.

**SPHÆROBOLUS.**

- stellatus. Tode.  
     On decaying oak. Sauc.

**Family III. CONIOMYCETES.****Order XII. SPHERONMEI.****LEPTOSTROMA.**

- filicinum. Fr.  
     On pteris aquilina. San Raf.

**MACROPLODIA.**

- arctostaphyli. n. sp. Vize.  
     On manzanita.  
 sambucina. n. sp. Cke.  
     On sambucus niger. Sac.

**PHOMA.**

- sp. (?)  
     On bramble stems. Sac.  
 concentricum. Desm.  
     On yucca. Sac.

- sequoiæ. n. sp. Pl.  
On dead wood. Big Trees.  
verbascola. Schw.  
On dead mullein stalks. Sac.

**ACTINOTHYRIUM.**

- graminis. Kze.  
On clover leaves. Sausalito.

**CRYPTOSPORIUM.**

- lupini. Cke.  
On lupins. San Fran.

**SHHÆROPSIS.**

- mutica. B. & Br.  
On elder. Sac.

**DIPLODIA.**

- aceris. Fckl.  
On sycamore twigs. Sac.  
salicis. Mst.  
On willows. Sac.

**HENDERSONIA.**

- sp. (?)  
On salicornia herbacea. common. San Raf.

**VERMICULARIA.**

- dematium. Fr.  
polygoni. Schw.  
On polygonum and pie plant. Sac.

**MELASMIA.**

- arbuticola. n. sp. Vize.  
On leaves of madroño. San Raf.

**SEPTORIA.**

- xanthii. Des.  
On xanthium strumarium. Sac.  
sp. (?)  
On leaves Darlingtonia Californica. Sac.

**EXCIPULA.**

- hispidula. Sch.  
On dead grass. Sac.  
strigosa. Fr.  
On dead elder branches. Streetens.

**DINEMASPORIUM.**

- graminum. Lev.  
On wild oats. Berkeley.

**ASTEROMA.**

- Rosæ. D. C.  
On living rose leaves. San Fran.

**CYTISPORA.**

- sp. (?) On buckeye husks. San Raf.  
fugax. Bull.  
On willow bark. Santa Cruz.  
leucosperma. Fr.  
On twigs wild cherry. Streetens.  
populina. Pers.  
On poplar bark. San Raf.  
salicis. Rabh.  
On willow. Summit.  
sp. (?)  
On liber redwood. Streetens.

## Order XIII. MELANCONIÆ.

**PESTALOZZIA.**

- planimi. n. s. p. Vize.  
On leaves of Enonymus. San Raf.

**NEMASPORA.**

- crocea. Fr.  
On dead oak bark. Streetens.

**GLÆSPORIUM.**

- carpigenum.  
On buckeye. San Raf.

## Order XIV. TORULACEI.

**SPORIDESMIUM.**

- induratum. n. s. p. Cke.  
On dead manzanita leaves. Yosemite.  
On dead roots sequoia. Big Trees.  
lepraria. B. & Br.  
On dead oak bark. San Fran.  
velutinum. Cke.  
On dead twigs. San Fran.

## Order XV. PUCINIÆI.

**PHRAGMIDIUM.**

- bulbosum. Sch.  
On bramble leaves. San Raf.
- gracile. Grev.  
On Rubus Nutkanus. San. Raf.
- mucronatum. Link.  
On rose leaves. San Fran.

**PUCCINIA.**

- amorphæ. B. & Curt.  
On amorphia Cala. Common. San Raf.
- anemones. Schw.  
On anemone. San Raf.
- angustata. Peck.  
On juncus. Sac.
- artemisiz. Fekl.  
On artemisia. Sac.
- asparagi. D. C.  
On asparagus stems. Sac.
- Berberidis. Mont.  
On Berberis aquifolium. Fresno River.
- coronata. Cord.  
On oats. San Fran.
- gayophiti. *n. s. p.* Vize.  
On gayophitum. Blue Cañon.
- graminis. Pers.  
On wheat and sugarcane. San Fran. and S. Is.
- Harknessii. *n. s. p.* Vize.  
On zigodesmus spinosa. Mt. Rosa, Nev., 7,000 ft.
- helianthii. Schu.  
On helianthus. Sac.
- hieracii. Mart.  
On crepis glaucus. Alta.
- malvacearum. Mont.  
On malva. San Fran.
- menthæ. Pers.  
On menthæ. Sac.
- obtusa. Sch.  
On white sage. Tehachepi.
- oenothera. *n. s. p.* Vize.  
On œnothera densiflora. Colfax.
- polygonorum. Link.  
On polygonaceæ. Sac.
- prunorum. Link.  
On plum leaves. Sac.

- sanicula*. Grev.  
     On *sanicula Menziesii*. San Raf.  
*splendens*. n. s. p. Vize.  
     On *tessaria*. Colorado Desert.  
*striata*. n. s. p. Cke.  
*vaginalium*. Lk.  
     On *polygonum*.  
*Xanthii*. Schw.  
     On *Xanthium strumarium*. Sac.

### GYMNOSPORANGIUM.

- biseptatum*. Ellis.  
     On living branches of *zibrocedrus*. Yosemite.  
 Order XVI. CÆOMACEI.

### SYNCHITRIUM.

- fulgens*. Schoeter.  
     On *œnothera biennis*. San Raf.  
*papillatus*. Far.  
     On *alfilaria*. San Raf.

### USTILAGO.

- carbo*. Tul.  
     On oats. San Fran.  
*bromivora*. F. de W.  
     On grass. St. Helena.  
*Maydis*. Tul.  
     On corn. Los Angeles.  
*utriculosa*. Ful.  
     On *polygonum aviculare*. Sac.

### UROCYSTIS.

- occulta*. Preuss.  
     On grass. Sac.

### UROMYCES.

- apiculatus*. Lev.  
     On clover. San Raf.  
*appendiculata*. Lev.  
     On vicia. Lake Co.  
*Betæ*. Kuhn.  
     On beet leaves. San Fran.  
*Ficarise*. Lev.  
     On *ranunculus* Cal. San Raf.  
*Howeii*. Pk.  
     On *asclepias*. Lake Co.  
*intricata*. n. sp. Cke.  
     On *gayophytum*. Blue Cañon.

- junci. Tul.  
     On juncus. Sac.  
   " var. Scirpi.  
     On scirpus. San Raf.  
 limonii. Lev.  
     On statice limonium. San Raf.  
 lupini. Sac.  
     On lupins. San Fran.  
 oblonga. n. sp. Vize.  
     On burr clover. Sac.  
 prunorum. Lk.  
     On peach leaves. Sac.  
   " var. Amygdali.  
     On peach leaves. Sac.

**COLEOSPORIUM.**

- Madia. n. sp. Ck.  
     On madia. San Raf.  
 miniatum. Lev.  
     On wild rose. Yosemite.

**MELAMPSORA.**

- populini. Lev.  
     On poplar leaves. San Raf.  
 salicina. Lev.  
     On willow leaves. Sac.

**CYSTOPUS.**

- candidus. Lev.  
     On cabbage leaves. Sac.

**UREDO.**

- convolvuli. Str.  
     On convolvulus. Sac.  
 lupini. B. & C.  
     On lupins. Sac.  
 quercus. Brond.  
     On oak leaves. Sierras.  
 scirpina. West.  
     On scirpus. Sac,

**TRICHOBASIS.**

- epilobii. D. C.  
     On epilobium. San Fran.  
 helianthi. Schw.  
     On helianthus. Sac.  
 polygonorum. Lev.  
     On polygonum. Sac.  
 rubigo vera. Lev.  
     On wheat. San Fran.

Order XVII. *ÆCIDIACEI*.**LYCETHEA.**

populina. Lev.

On populus moniloides. Sac.

**RÆSTELIA.**

cancellata. Ret.

On pear leaves. San Raf.

**PERIDERMIMUM**

Harknessi. n. sp. Moore.

On pinus ponderosa. Colfax.

pini. Fr.

On pinus insignis. San Fran.

**ÆCIDIUM.**

Berberidis. Pers.

On grass. Sac.

gayophyti. n. sp. Vize.

On gayophitum ramosissimum. Blue Cañon.

Family IV. *HYPHOMYCETES*.Order XVIII. *ISARIACEI*.**CERATIUM.**

hidneoides. A. &amp; S.

On rotten oak. Streetens.

Order XIX. *STILBACEI*.**OZONIUM.**

aureconium. Lk.

On rotten pine. Colfax.

On dead fir branches. Blue Cañon.

**STILBUM.**

fimetarium. B. &amp; Br.

On ground. Sac.

pellucidum. Schr.

On decaying polyporus. Sac.

**VOLUTELLA.**

setosa. B.

On twigs. San Fran.

**TUBERCULARIA.**

- nigricans. Lk.  
On dead fir bark. Big Trees.  
vulgaris. Tode.  
On locust. Sac.

**FUSARIUM.**

- personatum. n. sp. Cke.  
On dead laurel leaves. San Raf.

## Order XX. DEMATIÆ.

**HELMINTHOSPORIUM.**

- delicatulum. B. & Br.  
On umbelliferae. Sac.  
macrocarpum. Grev.  
On dead twigs. Sac.  
nanum. Nees.  
On dead herbs. Sac.  
rhabdiferum. B. & Br.  
On ripe peaches. Sac.  
turbinatum. B. & Br.  
On dead wood. Blue Cañon.  
velutinum. Lk.  
On dead twigs. San Raf.

**CERCOSPORA.**

- inquinans. n. sp. Cke.  
On gymnocarpus. San Raf.

**RAMULARIA.**

- obovata. Fekl.  
On leaves rumex. Sac.

**MACROSPORIUM.**

- brassicæ. B.  
On decaying cabbage leaves. Sac.

**POLYTHRINCIUM.**

- trifolii. Kze.  
On dead clover leaves. Sac.

**CLADOSPORIUM.**

- delicatulum. Cke.  
On dead leaves. San Fran.  
dendriticum. Wall.  
On pear leaves. Sac.



- epiphyllum. Cord.  
     On poplar leaves. San Raf.  
 fumago. Lk.  
     On laurel leaves. San Raf.  
 herbarum. Lk.  
     On typha latifolia. Sac.

## Order XXI. MUCEDINES.

### ASPERGILLUS.

- candidus. Lk.  
     On decaying substances. Common.  
 dubius. Cord.  
     On rabbit dung. Sac.  
 glaucus. Lk.  
     On decaying leaves pinus contorta. Summit.  
 mollis. B.  
     On dead leaves. Blue Cañon.  
 virens. Lk.  
     On decaying agarics. San Raf.

### PERONOSPORA.

- effusa. Grev.  
     On spinach. San Fran.  
 ficariæ. Tul.  
     On ranunculus repens. San Raf.  
 gangliiformis. B.  
     On lettuce leaves. Sac.  
 grisea. Ung.  
     On veronica. San Raf.  
 infestans. Mont.  
     On potato leaves. Coast.  
 nivea. Ung.  
     On umbelliferae. San Raf.  
 obliqua. Ck.  
     On dock leaves. Sac.  
 parasitica. Pers.  
     On cruciferae. Sac.  
 potentillæ. Sch.  
     On potentilla. Sac.  
 pygmæ. Ung.  
     On anemone leaves. San Raf.  
 sordidæ. B.  
     On scrophularia Californica. San Raf.  
 sparsa. B.  
     On rosa Californica. San Raf.  
 trifoliorum. De B.  
     On clover. San Fran.

- urticæ. Casp.  
     On nettle. San Raf.  
 vicæ. B.  
     On pear leaves. San Raf.

**PENICILLIUM.**

- bicolor. Fr.  
     On decaying substances. Sac.  
 chartarum. Cke.  
     On damp wall paper. Sac.  
 crustaceum. Fr.  
     On decaying substances. Sac.

**OIDIUM.**

- aureum. Lk.  
     On rotten wood. Sierras.  
 fasciculatum. Berk.  
     On decaying oranges. Sac.  
 favorum. B. & Br.  
     On honeycomb. Sac.  
 fructigenum. Schrad.  
     On apples and pears. San Fran.  
 Tuckeri. Berk.  
     On wild and cultivated grape leaves. Common.

**REISSIA.**

- semiophora. Fresen.  
     On pine. Yosemite.

**MYXOTRICHUM.**

- ochraceum. B. & Br.  
     On liber of redwood. Streetens.

**BOTRYOSPORIUM.**

- diffusum. Cord.  
     On dead twigs. San Raf.

## Order XXII. SEPEDONIEI.

**SEPEDONIUM.**

- chrysospermum. Lk.  
     On decaying fungi. San Raf.  
 roseum. Fr.  
     On decaying fungi. San Raf.

**FUSISPORIUM.**

- atrovirens. B.  
     On onions. Sac.

fœni. B. & Br.

On decaying grass. Sac.

roseolum. Stph.

On rotting potatoes. Sac.

## Division II. SPORIDIFERA.

### Family V. PHYSOMYCETES.

#### Order XXIII. ANTENNARIEI.

##### ANTENNARIA.

Guavæ. n. sp. Cko.

On leaves of guava. Sandwich Islands.

#### Order XXIV. MUCORINI.

##### MUCOR.

amethysteus. Bon.

On rotting pears. Sac.

caninus. Pers.

On dog's dung. Sac.

clavatus. Lk.

On fruit. Sac.

fusiger. Lk.

On decaying fungi. Sac.

mucedo. Linn.

On preserves. Sac.

phycomyces. B.

On oil, etc. Sac.

ramosus. Bull.

On fungi. Sac.

stolonifer. Ehrb.

On melons. Sac.

subtillissimus. B.

On onions. Sac.

tenerrimus. B.

On twigs. Sac.

##### TRICHODERMA.

viride. Pers.

On dead bark. Sausalito.

##### PILOBOLUS.

crystallinus. Tode.

On cow dung. Sac.

roridus. Schum. On cow dung. Sac.

**RHYPARORIBUS.**

dubius. Boud.

Cookei.

On dog's dung.

Woolhopenses. Renny.

On bird's dung. San Raf.

**ACROSTALAGMUS.**

cinnabarinus. Cord.

On dead weeds. Sausalito.

**ENDOGENE.**

pisiformis. Lk.

On oak bark. San Fran.

Order XXV. **SAPROLEGNIEI.****SAPROLEGNIA.**

ferax. Gr.

On living salmon and dead flies. common.

Family VI. **ASCOMYCETES.**Order XXVI. **ONYGENEI.****ONYGENA.**

equina. Pers.

On dead horse's hoof. Sac.

Order XXVII. **PERISPORIACEI.****SPHAEROTHECA.**

castagnei. Lev.

On hop leaves. Sac.

pannosa. Lev.

On rose leaves. Sac.

**PHYLLACTINIA.**

guttata. Lev.

On oak leaves. Alta.

**UNCINULA.**

adunca. Lev.

On willow. Sac.

bicornis. Lev.

On maple leaves. San Raf.

**PODOSPHERIA.**

Kunzei. Lev.

On plum leaves. Sac.

**MICROSPHÆRIA.**

comata. Lev.

On euonymus. San Raf.

fulvo-fulcra. n. sp. Cke.

On spiræa dumosa. San Raf

Grossulariæ. Lev.

On wild gooseberry. Sierras.

pencillata. Lev.

On alder leaves. San Raf

**ERYSIPHE.**

communis. Schl.

On leguminosæ. Sac.

graminis. D. C.

On grass. Sac.

lamprocarpa. Lev.

On plantain. Sac.

Martii. Lke.

On peas, beans, etc. common.

montagnei. Lev.

On sesbania. Fort Yuma

**CHÆTOMIUM.**

elatum. Kze.

On dead ash wood. Sac.

glabrum. B.

On damp straw. Sac.

**EUROTIUM.**

herbarorium. Lke.

On dead bark. San Frau

**CAPNODIUM.**

citri. B. & Desm.

On orange leaves. Los Angeles.

elongatum. B. & Desm.

On pear twigs. Sac.

salicini. H.

On willow leaves. Sac

**Order XXVIII. ELVELLACEI.****MORCHELLA.**

esculenta. Pers.

E. under oaks. Streetens.

conica.

E. On charred redwood. Streetens.

**GYROMITRA.**

*esculenta.* Fr.

*E.* under oaks. San Raf.

**HELVELLA.**

*Californica.* n. sp. Ph.

*E.* on ground. Blue Cañon.

*crispa.* Fr.

*E.* under oaks. San Raf.

*lacunosa.* Afz.

On hillsides.

**VERPA.**

*digitaliformis.* Pers.

Among redwood leaves. rare. Streetens.

**SPATHULARIA.**

*flavida.* Var. *Californica.* n. var. Moore.

On redwood. San Raf.

**VIBRISSEA.**

*truncorum.* Fr.

On sticks in water. Sierras.

**PEZIZA.**

*acutipila.* Kast.

On *Rubus Nutkanus.* San Raf.

*acuum.* Fr.

On fir leaves. Streetens.

*Agassizii.* var. *rufipes.* n. var. Ph.

On *pinus contorta.* Blue Cañon.

*alutipes.* n. sp. Ph.

On dead cedar leaves. Blue Cañon.

*arida.* n. sp. Ph.

On pine bark. Blue Cañon.

*aurantia.* Fr.

On ground. Sausalito.

*badia.* P.

On spruce boards. Truckee.

*bicolor.* Bull.

On *Rubus Nutkanus.* Blue Cañon.

*bufonia.* Pers.

On cow dung in dense woods. Streetens.

*bulgarioides.* Rab.

On dead cones sequoia. Big Trees.

*carbonaria.* A. & S.

On dead leaves sequoia. Big trees.

*caucus.* Reben.

On decaying cedar leaves. Alta.

.. var. *fusco-purpurea.* n. var. Ph.

- cinerea*. Batsch.  
     On decaying twigs. Colfax and Streetens.  
*citrina*. Hedw.  
     On rotten wood. Streetens.  
*clandestina*. Bull.  
     On oak. Summit.  
*coprinaria*. Cke.  
     On cow dung. Truckee.  
*corticalis*. P.  
     On twigs. San Fran.  
*crenulata*. B. & Br.  
     On ground. Streetens.  
*cupressina*. Batsch.  
     On dead leaves redwood. Streetens.  
*cyathoides*. Bull.  
     On *aralia racemosa*. Blue Cañon.  
*elaphines*. B. & Br.  
     On decaying wood. Angel Island.  
*epixantha*. n. sp. Cke.  
     On oak. Summit.  
*escharoides*. B. & Br.  
     On sticks. Blue Cañon.  
*fulgens*. P.  
     On ground. Yosemite.  
*fusca*. P.  
     On dead redwood. San Raf.  
*gemmea*. n. sp. Ph.  
     On dead redwood leaves. Streetens.  
*granulata*. Bull.  
     On rotting straw. Streetens.  
*hinnulea*. B. & Br.  
     On decaying wood. Colfax.  
*hyalina*. P.  
     On boards. Sac.  
*leiocarpa*. Curr.  
     On charred wood and earth. Streetens.  
*leporina*. Batsch.  
     On ground. Sausalito.  
*leucostigma*. Fr.  
     On oak. Colfax.  
*macrocystis*. Cke.  
     On charred wood. Streetens.  
*maculosa*. n. sp. Ph.  
     On cow dung. Colfax.  
*molesta*. n. sp. Ph.  
     On redwood chips. Streetens.  
*nigrescens*. Ck.  
     On willow bark. Summit.

- nivea*. Fr.  
     On oak chips. Blue Cañon.  
*obscura*. n. sp. Ck.  
     On oak. Summit.  
*omphalodes*. Bull.  
     On ground. Oakland.  
*phymatodes*. n. sp. Ph.  
     On dead weeds. Blue Cañon.  
*pithya*. P.  
     On redwood bark. Streetens.  
*relicina*. Fr.  
     On aralia stems. Colfax.  
*rosæ*. P.  
     On dead twigs. San Fran.  
*rutilans*. Fr.  
     On damp wall. San Fran.  
*sanguinea*. P.  
     On dead oak. Yosemite.  
*scabro-villosa*. n. sp. Ph.  
     On *Rubus Nutkanus*. Blue Cañon.  
*scubalonta*. Oke.  
     On cow dung. San Raf.  
*scutellata*. L.  
     On damp ground. Streetens.  
*secreta*. n. sp. Ph.  
     On ground—woods. Blue Cañon.  
*sequoiæ*. n. sp. Ph.  
     (*Hymenoscyphæ*.)  
     On dead leaves sequoia. Big Trees.  
*sequoiæ*. n. sp. Ph.  
     (*Sarco-scyphæ*.)  
     On dead leaves sequoia. Big Trees.  
*setigera*. n. sp. Ph.  
     On dead stem *Saxifraga peltata*. Blue Cañon.  
*stercorea*. P.  
     On cow dung. Colfax.  
*strobiliina*. Fr.  
     On pine cones. Blue Cañon.  
*subhirsuta*. Schw.  
     On cinder heaps. San Fran.  
*subtillissima*. O.  
     On decaying spruce. Summit.  
*sub-urceolata*. n. sp. Ph.  
     On ground under sequoia. Big Trees.  
*succina*. n. sp. Ph.  
     On dead oak. Blue Cañon.  
*sulphurea*. P.  
     On dead weeds. Berkeley.



- tholebeloides*. A. & S.  
     On cow dung. Sac.  
*uncinata*. n. sp. Ph.  
     On oak twigs. Blue Cañon.  
*ustorum*.  
     On redwood. Streetens.  
*venosa*. Pers.  
     On ground. Blue Cañon.  
*vesiculosa*. Bull.  
     On dunghill. San Fran.  
*villosa*. Pers.  
     On dead weeds. Berkeley.  
*vinosa*. A. & S.  
     On ground. Sierras.  
*virginica*. Batsch.  
     On dead leaves. San Fran.

### HELOTIUM.

- ærginosum*. Fr.  
     On dead birch. Sierras.  
*agaricinum*. Berk.  
     On decaying wood. Yosemite.  
*aureum*. Pers.  
     On dead laurel. Colfax.  
*citrinum*. Fr.  
     On dead oak. Yosemite.  
*claro-flavum*. B.  
     On oak bark. San Fran.  
*epiphyllum*. Fr.  
     On dead leaves. Yosemite.  
*fagineum*. Fr.  
     On decaying twigs. Blue Cañon.  
*fibuliforme*. Fr.  
     On elm branches. Sac.  
*herbarum*. Fr.  
     On dead stems. Blue Cañon.  
*lutescens*. Fr.  
     On dead twigs. Blue Cañon.  
*pallescens*. Fr.  
     On dead laurel. San Raf.  
*salicellum*. Fr.  
     On willow. Summit.  
*serotinum*. Fr.  
     On sticks. Summit.  
*subtile*. Fr.  
     On fir foliage, dead. Summit.  
*virgultorum*. Fr.  
     On dead wood. San Fran.

**PATELLARIA.**

- abietina. n. sp. Cke.  
On fir. San Raf.  
olivacea. Batsch.  
On rotten willow. Summit.  
rhabarbarina. B.  
On dead bramble. Blue Canon.

**TYMPANIS.**

- alnea. P.  
On alder twigs. Summit.  
conspersa. Fr.  
On raspberry twigs. Sac.

**DERMATEA.**

- flavo-cinerea. n. sp. Ph.  
On Cornus. Blue Cañon.

**CENANGIUM.**

- leptospermum. B. & C.  
On fir. San Raf.  
prunastri. Fr.  
On wild cherry. Yosemite.  
Ribis. Fr.  
On currant twigs. Sac.  
Rubi. Fr.  
On raspberry twigs. Alta.  
sequoia. n. sp. Pl.  
On bark sequoia. Big Trees.

**ASCOBOLUS.**

- ærugineus. Fr.  
On horse dung. Sac.  
atro-fuscus. n. sp. Ph. & Pl.  
On dung. Sac.  
carneus. Pers.  
On decaying pine wood. Colfax.  
ciliatus. Boud.  
On horse dung. Yosemite.  
furfuraceus. Pers.  
On cow dung. Warm Springs.  
Kerverni. Crouan.  
On cow dung. Sac.  
immersus. Pers.  
On cow dung. Sac.  
incanus. n. sp. Ph.  
On cow dung. Colfax.

- papillatus*. Boud.  
On cow dung. Colfax.  
*patellatus*. Wall.  
On cow dung. Sac.  
*pilosus*. Boud.  
On dog dung. Sac.  
*rari-pilus*. n. sp. Ph.  
On cow dung. San Raf.

**BULGARIA.**

- inquinans*. Fr.  
On oak. San Raf.  
*sarcoides*. Fr.  
On bark. Sauc.

**STICTUS.**

- Berkleyana*. De B. & Lev.  
On rotten wood. Cushings.  
*calceus*. n. sp. Ph.  
On dead willow. Tehachepi.  
*radiata*. Fr.  
On oak twigs. Streetens.  
*versicolor*. Ph.  
On liber redwood. San Raf.

**ASCOMYCES.**

- deformans*. Berk.  
On peach leaves. Sac.

## Order XXIX. PHACIDIACEI.

**PHACIDIUM.**

- internum*. n. sp. Ph.  
On libocedrus. Yosemite.  
*pini*. Schm.  
On pine bark. Blue Cañon.  
*ranunculi*. Desm.  
On ranunculus. San Raf.  
*Rubi*. Fr.  
On Rubus Nutkanus. San Raf.  
*trifolii*. Boud.  
Clover leaves. Sac.

**RHYTISMA.**

- acerinum*. Fr.  
On maple leaves. San Raf.  
*arbuti*. n. sp. Ph.  
On madroño. San Raf.

punctatum. Fr.

On sycamore. Sac.

salicinum. Fr.

On willow leaves. Sac.

On balm of gilead. Yosemite.

### **HYSTERIUM.**

acerinum. Frost.

On maple. San Raf.

angustatum. A. & S.

On redwood. Streetens.

arundinaceum. Schrad.

On grass. Blue Cañon.

commune. Fr.

On dead stems. Summit.

foliicolum. Fr.

On oak leaves. Summit.

formosum. n. sp. Ck.

On juniper bark. Summit.

pinastri. Schrad.

On pine leaves. Summit.

virgultorum. D. C.

On bramble stems. San Raf.

### **LABRELLA.**

pomi. M.

On apples in damp grass. Sac.

## **Order XXX. SPHÆRIACEI.**

### **TORRUBIA.**

militaris. Fr.

On pupa of caterpillar. Sausalito.

### **CLAVICIPS.**

purpurea. Tul.

On grass seeds. Sac.

### **HYPOCREA.**

lenta. Fr.

On fir boards. Sac.

rufa. Fr.

On redwoods. San Raf.

### **HYPOMYCES.**

aurantius. Tul.

On dead fungi. Sausalito.

luteo-virens. Fr.

On dead fungi. Sausalito.

- rosellus*. Tul.  
On dead fungi. San Raf.  
*ochraceus*. Tul.  
On dead fungi. San Raf.

**NECTRIA.**

- coccinea*. Fr.  
On bark lupins. San Fran.  
*cinnabarina*. Fr.  
On bark. San Fran.  
*enurbitula*. Fr.  
On bark. Cushings.  
*episphæria*. Fr.  
On bark. San Fran.  
*ochraceo-pallida*. R. & Br.  
On elder twigs. Streetens.  
*peziza*. Fr.  
On lupins. San Fran.  
*umbrina*. Fr.  
On decaying bean stalks. Sac.

**XYLARIA.**

- hypoxylon*. Grev.  
On roots. Sausalito.

**USTULINA.**

- vulgaris*. Tul.  
On dead trees. Sausalito.

**HYPOXYLON.**

- coccineum*. Bull.  
On bark. San Fran.  
*cohmrens*. Fr.  
On twigs. Sausalito.  
*concentricum*. Grev  
On dead ash. Clear Lake.  
*fuscum*. Fr.  
On oak. San Raf.  
*mallesus*. B. & Rav.  
On oak. Sausalito.  
*rubiginosum*. Fr.  
On laurel logs. San Raf.  
*rufa*. Fr.  
On wild cherry. Yosemite.  
*stigmatum*. n. sp. Cke.  
On dead bark. Tehachapi.  
*serpens*. Fr.  
On dead laurel. San Raf.

**NUMMULARIA.**

- Bulliardi. Tul.  
On live oak. Yosemite.

**DIATRYPELLA.**

- tocciana. De Not.  
On bark dead alder. Streetens.

**DOTHIDEA.**

- graminis. Fr.  
On grass. Sac.  
junci. Fr.  
On juncus. Sac.  
potentillæ. Fr.  
On potentilla glandulosa. San Raf.  
ribesia. Pers.  
On currant twigs. Sac.  
Rosæ. Fr.  
On rose. Sac.

**DIATRYPE.**

- aspera. Fr.  
On oak. Streetens.  
bullata. Fr.  
On willow. Streetens.  
disciformis. Fr.  
On buckeye. San Raf.  
hystrix. Fr.  
On sycamore. Sac.  
incarcerata. B. & Br.  
On rose. Sac.  
strumella. Fr.  
On currant. Sac.

**MELANCONIS.**

- longipes. Tul.  
On oak branches. San Fran.

**VALSA.**

- coronata. Fr.  
On oak. Sausalito.  
salicina. Fr.  
On willow. Santa Cruz.  
sordida. Fr.  
On poplar bark. Sac.  
vitis. Schw.  
On grape cuttings. San Raf.

**DIAPORTHE.**

- arctii. Nke.  
On heracleum. Streetens.

**CUCURBITARIA.**

- confluens. n. sp. Plow.  
On oak bark. Colfax.  
macilenta. Cke.  
On cedar. Blue Cañon.

**SORDARIA.**

- bombardiodes. Awd.  
On colt's dung. Mt. Shasta.  
Californica. n. sp. Plow.  
On cow dung. San Raf.  
coprophila. De Not.  
On cow dung. Sac.  
flmicola. Rab.  
On horse dung. Sac.

**BYSSOPHÆRIA.**

- aquila. Fr.  
On rotten wood. San Francisco.

**PSILOSPHÆRIA.**

- moriformis. Tode.  
On hazel. Howards.  
myriocarpa. F.  
On elder. Tehachapi.  
pulveracea. Ehr.  
On oak. Yosemite.

**LASIOSPHÆRIA.**

- canescens. Pers.  
On redwood. Streetens.

**SPHÆRIA.**

- Arctostaphylos, n. s. Pl.  
On dead manzanita. Yosemite.  
bombardioides. Awd.  
On cow dung. Colfax.  
commanipula. B. & Br.  
On Aralia Cala. Colfax.  
confertissima. n. sp. Plow.  
On redwood cones. Streetens.  
conflicta. n. sp. Cke.  
On oak leaves. Streetens.  
Herbarum. Pers.  
On soap plant. St. Helena.

- megalocarpa*. n. sp. Flow.  
     On maple. Colfax.  
*morbosa*. Schw.  
     On living wild cherry. Yosemite.  
*palmacea*. n. sp. Cke.  
     On palms. Los Angeles.  
*permunda*. n. sp. Cke.  
     On Soap plant. Blue Cañon.  
*picea*. Pers.  
     On *Chenopodium alba*. Sacramento.  
*pulvis-pyrinus*. pers.  
     On *pinus contorta*. Blue Cañon.  
*rostellata*. Fr.  
     On *Ribes ursinus*.  
*rubella*. Pers.  
     On *heracleum*. San Fran.  
*salicella*. Fr.  
     On willows. Summit.  
*sambuci*. n. sp. Pl.  
     On elder. Streetens.  
*sequoiæ*. n. sp. Pl.  
     On sequoia. Big Trees.  
*spiculosa*. Pers.  
     On ash bark. Streetens.  
*sub-moriformis*. n. sp. Pl.  
     On bark. San Raf.  
*sustenta*. n. sp. Pl.  
     On manzanita. Blue Cañon.  
*tumulata*. n. sp. Cke.  
     On *pinus contorta*. Summit.  
*Vizeana*. Cke.  
     On *lathyrus venosa*. Sac.  
*Yucca*. Sch.  
     On *yucca communis*. Sac.  
*Yuccaegena*. n. sp. Cke.  
     On *yucca angustifolia*. Mohave.

### GNOMONIA.

- alni*. n. sp.  
     On alder. San Raf.

### SPHÆRELLA.

- brassicola*. De Not.  
     On cabbage leaves. Sac.  
*conglomerata*. Wall.  
     On alder leaves. Howards.



- erysiphena*. B.  
                     On hop leaves. Sac.  
*latebrosa*. Cke.  
                     On fallen sycamore leaves. Sac.  
*salicicola*. W.  
                     On willow leaves. Summit.  
*simulans*. Cke.  
                     On oak leaves. San Raf.  
*sparsa*. Awd.  
                     On chestnut leaves. Sac.

### **VENTURIA.**

- sequoia*. n. sp. Pl.  
                     On decaying leaves, sequoia. Big Trees.

### **STIGMATEA.**

- chætonium*. Fr.  
                     On raspberry leaves.  
*Geranii*. Fr.  
                     On leaves of geranium.  
*polygonorum*. Fr.  
                     On living leaves of Polygonum. San Raf.  
*potentillæ*. Fr.  
                     On living leaves of Potentilla. Sac.  
*rannunculi*. Fr.  
                     On Rannunculus Cala. San Raf.

### **OZHOMA.** (Sp ?)

- On pine wood. Blue Cañon.

## ADDENDA.

**STEPTOTHRIX.**

atra. B. & C.

On grape cuttings. San Raf.

**AGARICUS.** (Sub. Gen?)

tridens. n. sp. Moore.

## CAVE FUNGUS.

Pileus fleshy, conchiform; skin very thick, coriaceous; color light buff. Edge entire, involute. The stem is *three feet and four inches long*, and is attached to the timber on which it grows, and from which it hangs suspended by a disk several inches in diameter. This disk is clothed with a thick, soft brown felt, which extends down and covers the stem for several inches.

At nine inches from the point of attachment the stem divides into three branches, which again unite, singularly enough, at just nine inches from the point of division, and immediately send off two lateral branches.

The main stem continues downward, enlarging to the diameter of nearly three inches. It is no longer covered with the felty mass, but is smooth and hard to the point at which the shell-shaped pileus is thrown off. Here a most singular growth has taken place. From all sides short branches, resembling the young antlers of a stag, are pushed out. Two of these becoming more vigorous than the rest have extended downward, the larger of the two dividing into three branches, thus *terminating the whole in a perfect trident*.

The gills, which are distinct, notched, sinuate, and of a pale straw color, run for some distance up the stem. The spores are ovate, exceedingly minute and borne on true basidia.

The plant was found attached to a timber in one of the abandoned drifts of the Yellow Jacket Mine, Virginia City, Nevada, at the depth of 400 feet below the surface. J. P. M.

## XXI. BOLETUS.

**B.**

luteus. Lin. *E.* rare. San Raf.

flavidus. Bull. San Raf.

piperatus. Bull. San Raf.

variegatus. Swartz. Howards.

subtomentosus. Linn. *E.* San Raf.

edulis. Bull. *E.* San Raf.

impolitus. Fr. San Raf.

aestivalis. Fr. San Raf.

Satanas. Lenz. San Raf.

luridus. Schæff. San Raf.

erythropus. Pers. San Raf.

versipelles. Fr. *E.* San Raf.

scaber Fr. *E.* San Raf.

granulatus. L. *E.* San Raf.

bovinus. L. *E.* San Raf.

castaneus. Bull. San Raf.

## XXII. FISTULINA.





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